



A new species of *Hyperolius* Rapp, 1842 (Anura: Hyperoliidae) from the Serra da Chela mountains, south-western Angola

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Abstract

A new species of African reed frog (genus *Hyperolius* Rapp, 1842) is described from a high altitude, forested gorge in the Serra da Chela mountain range near the village of Humpata, Lubango area, Huila Province, south-western Angola. It is currently only known from its type locality. Phylogenetic reconstruction using the mitochondrial 16S marker reveals that it is the sister taxon of the poorly known *Hyperolius cinereus* (>4% sequence divergence) also described from Angola, and forms part of a larger clade comprising *H. platyceps*. The new species is distinguished from other closely related *Hyperolius* species by genetic divergence, vocalisation, an unusual torrent stream habitat, and colouration.

Key words: Amphibian, Hyperoliidae, *Hyperolius*, Reed frog, Biodiversity, Afromontane, Angola

Introduction

The amphibian fauna of Angola is poorly known, and a recent summary listed 86 species within 7 families and 20 genera, of which 14 species (16%) were considered endemic (Blanc & Fretey 2000). Frost (2011) listed 99 amphibian species for Angola, although this contained a number of taxa (e.g. *Cardioglossa leucomystax*) that were presumed to occur, but whose presence remains unconfirmed. Despite these discrepancies, amphibian diversity in Angola is considerably lower than that of adjacent Democratic Republic of Congo (DRC) to the north (ca. 232 species (Table 2 in Poynton 1998, Frost 2011), but comparable to the Zambesiaca area (which includes Botswana, Caprivi [Namibia], Zambia, Malawi, Mozambique and Zimbabwe: 113 species, Poynton & Broadley 1991).

The genus *Hyperolius* Rapp, 1842 is the most speciose African amphibian genus (Poynton 1999), with more than 120 recognised species (Frost 2011). Frost (2011) further lists 31 *Hyperolius* species known from Angola, of which 7 species are recorded from the Cabinda enclave, which is politically part of Angola but lies to the north of the Congo River and shows greater affinities to DRC biodiversity. Moreover, two species listed by Frost (2011), i.e. *H. obscurus* and *H. poweri*, have not been recorded from Angola, including Cabinda. The taxonomic status and evolutionary relationships of many Angolan hyperoliid species are equivocal, e.g. *Hyperolius nasutus* complex (Channing *et al.* 2002; Schiøtz 2006), whilst others await rediscovery or reassessment since their original description between 50 and 135 years ago (e.g. *Hyperolius bicolor* Ahl, 1931; *H. cinereus* Monard, 1937; *H. fasciatus* (Ferreira, 1906); *H. ferreirai* Noble, 1924; *H. fuscigula* Bocage, 1866; *H. gularis* Ahl, 1931 and *H. vilhenai* Laurent, 1964). The latest phylogeny of African hyperoliids (Schick *et al.* 2010) emphasized difficulties in *Hyperolius* taxonomy resulting from the generally poor external diagnostic characters and substantial intraspecific colour and pattern variation. This, together with the often inadequate original descriptions, as for example those of Ahl (1924), has resulted in considerable taxonomic confusion.